CITY OF LINCOLN PUBLIC WORKS AND UTILITIES LINCOLN/LANCASTER COUNTY PLANNING STAFF REPORT

P.A.S.: Comprehensive Plan Amendment #94-62 DATE: June 22, 2001

South Beltway

PROPOSAL: By the Director of the Lincoln/ Lancaster County Planing Departments with the

Director of the Public Works and Utilities Department to amend to the Long Range Transportation Plan and other appropriate portions of the 1994 Lincoln/ Lancaster County Comprehensive Plan to reflect the inclusion of the South Beltway as a four lane limited access expressway, generally ½ mile south of Saltillo Road from Highway 77 to Highway 2, including portions between north of Saltillo, east of 98th

Street.

GENERAL INFORMATION:

APPLICANT: Allan Abbott, P. E. Kathleen A. Sellman, AICP

Director of Public Works & Utilities

555 S. 10th Street

Lincoln, NE 68508

(402) 441-7548

Director of Planning

555 S. 10th Street

Lincoln, NE 68508

(402) 441-7491

CONTACT: Roger Figard, P. E. Stephen Henrichsen, AICP

Public Works & Utilities Planning Department 531 Westgate Blvd. Suite 100 555 S. 10th Street Lincoln, NE 68508 Lincoln, NE 68508

(402) 441-7711 (402) 441-7491

REQUESTED ACTION: Approval of the south beltway alignment as an amendment to the Comprehensive Plan.

ANALYSIS:

- 1. This report will focus on only one potential beltway route the **south** beltway.
- 2. The 1994 Lincoln/ Lancaster County Comprehensive Plan states on page 104:

"A complete circumferential roadway system has been discussed formally in Lincoln for more than 30 years. The 1961 Comprehensive Plan identified Interstate 80 as the most important link in the circumferential route, supplemented by a system around the urban area."

3. The City of Lincoln, Lancaster County and the Nebraska Department of Roads (Study Team) have jointly conducted the South and East Beltway Draft Environmental Impact Study (DEIS), in conjunction with the Federal Highway Administration (FHWA), to review the transportation, social, environmental and economic impacts of the potential beltway corridors. The DEIS was prepared to satisfy the requirements of the National Environmental

- Policy Act (NEPA). The roadway concepts that were analyzed included multiple alignment corridors and a "no build" roadway option.
- 4. The DEIS has been in process since 1995. In June 1997, the City Council, County Board and Planning Commission at a "Super Common" meeting recommended the elimination of the East Close route from further review in the South and East Beltway EIS. When meeting as the "Super Common" each body meets in an unofficial capacity for purposes of discussion and its actions are not binding.
- 5. On December 15, 1998 the City Council and County Board, at a special concurrent meeting, voted separately to consider only the East Far Route in the EIS.
- 6. Early in 1999 the Federal Highway Administration ruled that the EIS must equally consider all three east routes. Thus, the DEIS includes all three east routes.
- 7. Between March 23, 2001 and June 15, 2001 the DEIS has been available to the public for review and comment (See History in Appendix A). The Study Team has reviewed the comments on the DEIS and has concluded that the testimony did <u>not</u> reveal a significant social, environmental or economic impact of a nature to change the recommendation that all four corridors (one in south, three in east) meet the purpose and need of the Study.
- 8. Since March 1996, the South and East <u>Study Corridor</u> in the Comprehensive Plan has remained unchanged. The South Study Corridor is from Yankee Hill Road to ½ mile south of Bennet Road. The East Study Corridor is generally from 98th to ½ mile east of 148th Street.)
- 9. The purpose of this Comprehensive Plan amendment is to review a beltway route for its conformance with the Comprehensive Plan. In particular this analysis will focus on how the proposed route meets the transportation functions of the Plan and its Comprehensive Plan implications. This Comprehensive Plan Amendment will use information in the DEIS as a reference -- the purpose of this report is **not** to review and comment on the DEIS itself.

Transportation Functions

- 10. In the DEIS, the purpose and need of the beltway was identified (see Appendix B.) The DEIS concludes that "comparison of the four finalist beltway alternatives indicates that all of the alternatives will serve the project purpose and need, and all of the alternatives are considered feasible and cost-effective solutions."
- 11. However, in terms of the Comprehensive Plan, the function of the Beltway is broader and more complex. The current 1994 Comprehensive Plan has many goals, strategies and statements relating to the function and use of the Beltway (see Appendix C). In general, the primary functions of the proposed Beltway as identified in the current Comprehensive Plan are as follows:
 - A. **Complete Circumferential Transportation System:** by linking Interstate 80 (I-80) on the north and Highway 77 on the west. The Comprehensive Plan states:

- Carry out feasibility and corridor studies and a preliminary environmental assessment for the South and East Beltway within the next five years.
- C Proceed with development of the Beltway and Antelope Creek Trafficway projects.
- B. **Internal Traffic Relief**: reduce traffic on internal streets, such as Highway 2 or 84th Street, and reduce the amount of traffic passing through Lincoln on the way to other communities. The Comprehensive Plan states:
 - C Reduce dependency on fossil fuels for energy.

The Plan encourages reducing the community's dependence on the automobile, but recognizes that road improvements and the beltway are important and will continue to be a part of the transportation system in the future.

- C. **Establish New Truck Route Around City**: each route could reduce significantly the amount of truck traffic within Lincoln. The Comprehensive Plan states:
 - Complete implementation of the Beltway to complete a circumferential system for external to external truck traffic.
- D. **Provide a Multiple Use Corridor**: the goals of the Comprehensive Plan encourage the development of trails, open space, utilities and alternative transportation modes along major transportation corridors. The Comprehensive Plan states:
 - C Include trails and pedestrian facility development in the design and funding of major roadway development projects, including the Beltway, the Antelope Creek Trafficway, and 84th Street.
 - Consider the development of new, major corridors such as the Beltway as linear open spaces as well as major highways, integrated into development and open space patterns in developing parts of Lincoln.
 - C Program trails development as part of the City's transportation capital program as well as its recreational effort. Include trails and linear parks in the development of new major transportation projects, such as Antelope Valley and the South and East Beltway...
 - C Provide for the mobility needs of the community through a balanced and efficient system of roads, trails and public transportation alternatives.
- 12. The South Beltway could serve these four functions adequately:
 - A. **Complete Circumferential Transportation System:** The proposed south route will link Highway 77 on the west to Highway 2 in the southeast and establish the ability for future east connection to Interstate 80 to complete the system. Even if the

circumferential route were never completed (i.e. the East route not built) there is still merit and function to the connection between Highway 2 and Highway 77.

- B. **Internal Traffic Relief**: The proposed south route would reduce the amount of traffic increase on Highway 2 as trips external to Lincoln which use Highway 2 would find greater utility in the south Beltway route to go around Lincoln. According to the DEIS, depending upon which east route was completed, approximately 15,000 to 20,000 vehicles a day would use the south route. (See pages 2.52 to 2.55 of the DEIS) The DEIS also projected significant reductions on Highway 2 traffic. (This relief on Highway 2 was also reflected in the traffic modeling recently completed for the "Southeast Lincoln/ Highway 2 Subarea Plan.") The future urban area extends south of Saltillo Road between 27th and 48th Street, so the south route would also serve a function for internal traffic in this future urban area as well.
- C. **Establish New Truck Route Around City**: The south route could reduce significantly the amount of truck traffic within Lincoln, particularly on Highway 2. The Comprehensive Plan already designates the south corridor for a possible future truck route. (Page 109 of the Comprehensive Plan.)
- D. **Provide a Multiple Use Corridor**: Comprehensive Plan goals encourage the development of trails, open space, utilities and alternative transportation modes along major transportation corridors. The south route provides several opportunities as a multi-use facility. It could link future trails in Wilderness Park with Beals Slough and potentially the proposed Homestead Trail and future trails in Stevens Creek. The trail could be part of an open space corridor that connects Wilderness Park and Stevens Creek. However, the open space functions need further study.

The extension of Wilderness Park to the south could be accommodated underneath the south beltway as this portion of the road is elevated to cross two railroad tracks and Salt Creek. Lincoln Electric System (LES) has expressed interest in the south route for a future transmission corridor. The route's location near the future urban area and connections to Highway 2 and Highway 77 merits consideration for future transit and other transportation alternatives.

Highway 2 between 40th and 48th Street is a good example of a multiple use corridor where LES transmission lines, trail, open space, flood corridor and roadway make use of a single corridor.

As a multi-use corridor, it will require interagency cooperation and potentially multiple levels of ownership. For instance, the trail route could be at the edge of the road right-of-way and could wind within a utility corridor.

13. The proposed amendment would add the beltway route as a "free flow" 4 lane divided roadway with access limited to intersections two miles or more apart. The proposed south beltway intersections and overpasses are as follows:

Intersections

C Highway 77, S. 33rd (for S. 27th & S. 38th), S. 68th, S. 84th and Highway 2.

Road Overpass without an Intersection

- S. 25th, 54th, and 96th Streets
- 14. The proposed amendment would change numerous sections of the Plan. It would designate the route in the Functional Classification, Future Road Network, Truck Route and County Road Improvement portions of the Plan. The text would also be amended to reflect the multiple functions of the beltway route. Establishing the beltway route in the Comprehensive Plan is important in order to state the local preference required by the federal process and to allow for right-of-way acquisition and/or corridor protection through the state, if the route is accepted as a NDOR project.

Comprehensive Plan Implications

Future Land Use Implications

- 15. A **beltway** can be defined as a circumferential highway skirting an urban area while a **bypass** may be more narrowly define as a deflected route usually around a town and not necessarily part of an overall circumferential road network. In addition to the South Beltway, the East Beltway, I-80 and Highway 77 would complete the circumferential "beltway." Both I-80 and Highway 77 have portions where there is urban development on both sides of the road. For example, much of the West A Neighborhood is west of Highway 77, and the airport, Arnold Heights and Highlands neighborhoods are north of I-80.
- 16. The proposed South Beltway route will route traffic around the existing Lincoln area and will be at the edge of the future urban areas. One of the principal questions about the beltway has been -- "should the urban area develop on both sides of the beltway route." The possible extension of the future urban area to be on both sides of the beltway route will not be answered at this time, but will instead be answered in a new Comprehensive Plan in the next year.

Thus, this proposal will have the beltway at the edge of the future urban area of Lincoln. It will provide an important transportation function regardless if the urban area develops on one or both sides of the proposed route. It provides an alternative truck route, will serve both urban and low density residential and residents in towns and villages in southern Lancaster County.

- 17. The land use plan is **no**t being amended at this time. However, the beltway routes can serve as a significant asset for existing and future land use patterns. The future urban area extends to generally Saltillo Road. The new Comprehensive Plan under development this year will address wether urban uses should be developed in this drainage basin, on both sides of the south beltway corridor.
- 18. A vast majority of the south route is currently designated as agricultural in the land use plan. Generally the area from Highway 77 to approximately 70th Street is in the Salt Creek drainage basin. There is currently limited sanitary sewer capacity in the Salt Creek line, even after the current relief line is completed. The area from generally 70th Street east to Highway 2 is in the Hickman and Nemaha drainage basins and can't be provided with gravity sanitary sewer service per city standards.

19. Comments on the DEIS included concern that the beltway will lead to urban "sprawl." The goals of the Comprehensive Plan encourage contiguous development and efficient use of infrastructure. Lincoln has used the Comprehensive Plan for over 50 years in order to make wise decisions for the future. Interstate 80 has been in place for decades and Highway 77 (Homestead Expressway) has been operably for nearly a decade. These roads don't dictate the future – it is the community through its plans that determines our growth patterns.

Social, Economic & Environmental Implications

- 20. The goals of the Comprehensive Plan encourage protecting rural and urban neighborhoods, historic resources and preserving the environment. The DEIS provides information on the implications of adopting the south beltway route. In general, the significant time spent defining the route has to minimize impacts of this project. (See Appendix D and "Refined Finalist Beltway Alternatives" figure.) In summary, the south route would:
 - Relocate 5 homes and 1 business; impact 23 acres of residential uses and 10 acres of commercial uses; have noise impacts on 5 homes and have visual impacts on 27 homes.
 - Impact 587 acres of farmland; 18 acres of wetlands, and no acres of prairie grasslands.
 - C Adversely impact 1 historic residence.
 - Require crossings of: 3 railroads, no trails (though one proposed trail), 2 major streams, 4 floodplains, and no floodways.
- 21. All routes will impact some residents, their homes and farm land. Development of the beltway should not be taken lightly as the lives of people within the route and adjacent property will be significantly affected.
- 22. The right-of-way would cover 730 acres or 1.1 square miles of land. In general, urban development and transportation projects often have some impact on existing residences or the environment. The project has yet to enter the final design stage, so it may be possible to mitigate or avoid some impacts once further engineering is completed. The DEIS reflects that this route can be built without a significant impact on the environment.
- 23. The estimated cost of the south beltway alone was \$107 million in 1996 dollars. Federal funds have already been set aside to work on the final project design and corridor protection for the South Beltway.
- 24. Some roads leading to beltway intersections may have to be improved. For the south route, many of these roads are already in the community's plans for improvements. South 27th and South 40th Street are designated for future four lanes to Saltillo Road. South 56th and 70th Street have rural paving to Saltillo Road. South 84th and South 98th Street are gravel roads leading to Saltillo Road. These roads will need to be reviewed in the Long Range Transportation Plan update accompanying the new Comprehensive Plan.
- 25. In order to complete the beltway as a limited access route, the designation of Highway 77 will need to be examined as part of the Long Range Transportation Plan update. Highway 77 currently has a few at grade intersections with traffic signals, rather than grade separated intersections to allow a free flow of traffic. In order to function as a limited access roadway,

the at grade intersections will have to be either eliminated or changed into interchanges without traffic signals.

26. Lincoln Electric System (LES) and the Lower Platte South Natural Resources District (NRD) have not stated any preference for any Beltway route.

CONCLUSION:

The South Beltway has undergone seven years of public input and extensive technical analysis. The public has reviewed and commented on the Draft Environmental Impact Statement. Public comments have raised questions about the boundaries of historic properties in the East Far route, but appear to not reveal any other social, economic or environmental impact that would change the DEIS recommendation that all four routes meet the purpose and need.

The purpose of this Comprehensive Plan Amendment is not to determine the accuracy or merits of the DEIS. The purpose of this Amendment is to determine if the South Beltway is in conformance with the Comprehensive Plan.

The adopted goals of the Comprehensive Plan provide the foundation upon which the Plan itself was developed. The goals offer far-reaching guidance concerning the policies and objectives that the Plan's content and its implementation should reflect. Interpretation of the goals relative to a specific project should be undertaken considering the broad context within which they were developed, as well as the nature of the project being examined.

The South Beltway route is in conformance with the goals of the Comprehensive Plan in that it:

- Transportation Functions: The south route would aid in completing a circumferential roadway in the Lincoln area. This route is within a ½ mile of the future service limit and would handle some of through traffic that otherwise would be on Highway 2 and other arterial streets in the future urban area. The proposed route will provide an alternative truck route connection between US 77 and Highway 2 which is a goal of the Plan. The route has potential as a multi-use corridor for trails, open space, utilities and other transportation alternatives in the future.
- Comprehensive Plan Implications: the Plan emphasizes preservation of the natural environment with respect for economic consequence: the proposed route minimizes impact on natural resources in that it has relatively little impact on wetlands, no impact on native prairie, does not cross the existing boundaries of Wilderness Park, and could be built in a manner to minimize the floodplain impact. The Plan also encourages respect for existing residential areas and while the route will impact homes and a few businesses, every effort has been made to minimize this impact which is reasonable given the scale of the project. The Plan also encourages contiguous development and While the beltway is an important asset, it is the community that will determine it's future land use plans. The Plan encourages efficient use of the community's infrastructure and resources -- this route has been shown to be cost effective in the DEIS.

On the whole, the proposed South Beltway Comprehensive Plan Amendment is consistent with the spirit and intent of the adopted goals of the Comprehensive Plan. Care should be taken to respect the Plan's goals during the more detailed implementation activities for the beltway. Future South Beltway related actions and documents—such as the development of the new Comprehensive Plan, change of zone requests, and capital improvement projects—should reflect the goals of the Comprehensive Plan. The beltway is just one part of the community's plan – it should not dictate the direction or form of the community's development.

STAFF RECOMMENDATION: Approval of Comprehensive Plan Amendment #94-62; see language below:

Allan Abbott, P. E.
Director of Public Works & Utilities

Kathleen A. Sellman, AICP Director of Planning

- 1. Amend Figure 27 "Functional Street and Road Classification: Future," page 92, to include the South Beltway as an "Urban/ Rural Interstate & Expressway." Beltway alignment is shown on the attached exhibit.
- 2. Amend Figure 28, Proposed Changes in Functional Classifications," page 93, to include the South Beltway as a new category of "Unclassified to Urban/Rural Interstate & Expressway." Beltway alignment is shown on the attached exhibit.
- 3. Amend Figure 31 "Improvements for Future Road Network: 1-25 Year Program," page 96, to add a new category for the South Beltway as a Four Lane Limited Access Divided Highway with 300 foot wide right-of-way with appropriate symbol and to eliminate the South and East Beltway Corridor Study Area for the area south of Highway 2. (The study corridor shall be renamed as appropriate or eliminated if the East Beltway route is also selected.) Beltway alignment is shown on the attached exhibit.
- 4. Amend Table 10, "Transportation Projects -Year 2015", page 97, to delete the *South and East Beltway Corridor Study* from the list of studies and to include this beltway segment as a new category.
- 5. Amend Figure 33, "City of Lincoln Ultimate Truck Routes," page 107, to delete the "South and East Beltway Corridor Study Area for the area south of Highway 2 and to include the beltway route as shown on the attached exhibit. 2. (The study corridor shall be renamed as appropriate or eliminated if the East Beltway route is also selected.)
- 6. Amend Figure 35, Future Road Improvements in County," page 111, to include the beltway route as shown on the attached exhibit.

- 7. Amend Figure 38, Lincoln Area Current and Future Trails Network, page 120, to show "Future Grade Separation" where a trail location crosses the proposed beltway route.
- 8. Amend the text description on page 104 and 105 as follows:

Current text (with proposed changes shown in legislative format)

1. South and East Beltway

"A complete circumferential roadway system has been discussed formally in Lincoln for more than 30 years. The 1961 Comprehensive Plan identified Interstate 80 as the most important link in the circumferential route, supplemented by a system around the urban area.

The 1966 "Lincoln Metropolitan Area Transportation Study" depicted an "East Side Freeway" and a "U.S. 77 West By-Pass" in the Major Street Plan.

A very detailed and comprehensive 1971 "Corridor Study for the U.S. 77 West and East By-Passes of Lincoln" was prepared by a consultant under a contract with the Nebraska Department of Roads. The study identified several alternate corridors with costs and impacts identified for each. The State Highway Commission, in September 1972, designated the U.S. Highway 77 By-Pass as the top priority to receive funds from the highway building program being considered by Congress at that time.

The 1977 and 1985 Comprehensive Plans focused on completion of the U.S. 77 West By-Pass and the "K" and "L" Street connection between the West By-Pass and the Downtown Area.

Since 1972, the efforts and resources of the Community, the Nebraska Department of Roads and various political entities have been focused towards completion of the U.S. 77 West By-Pass, the "K" and "L" Street Extension and the Highway 2 connection along Van Dorn Street. The culmination of these projects reflect an excellent cooperative effort between many different highway agencies, railroads, political subdivisions, park officials and neighborhood groups.

Since most of the work on the U.S. 77 West By-Pass is either underway or has funding committed, attention should now be focused to the future and the need to complete the loop road network with South and East Beltway. Clearly the desire of the community is to complete the loop roadway network.

The community views the beltway system as an essential component of the regional transportation network which would move through traffic around congested urban areas, reduce delay and improve traffic flow on the existing urban street system. The east beltway corridor extends from 96th Street to half a mile east of 148th Street and the south beltway corridor extends from Yankee Hill Road to half a mile south of Bennet Road. (Amendment 9405)

From 1995 to 2001 the South and East Beltway Study was conducted. This study evaluated numerous potential routes in a broad study corridor. In 2001 after significant public review and analysis, the south beltway route was adopted for inclusion in the Comprehensive Plan. The network model evaluated the potential impacts of the South and East Beltway on the rest of the street network. The projected traffic diverted to the beltway was found to be heavily dependant upon their location. An unrestrained East Beltway (with higher speeds and no signals) located at the extreme eastern limits of the corridor was shown to serve 24,000 fewer vehicles per day than a similar facility located at the extreme western edge of the corridor. A similar sensitivity to location was shown in the South Beltway, although the projected volumes were somewhat lower with a change of 5,500. It is, therefore critical that a Feasibility, Corridor Alternative Evaluation and Preliminary Environmental Assessment be undertaken early in the Planning period. This is necessary not only to provide corridor protection but to address impacts on other portions of the network.

Establish a high priority plan to develop early identification of beltway corridors Now that the corridor has been established the next step is for corridor protection, right-of-way retention, acquisition and to develop an aggressive program to commence the process of funding requests. Every effort should be made to reduce the impact on adjacent residences when possible.

The beltway route is a multi-use corridor which should incorporate the following features in addition to the four lanes of roadway:

- <u>C</u> <u>trails and pedestrian facilities</u>,
- linear open spaces integrated into development and open space patterns in the development of Lincoln.
- <u>c</u> <u>utility corridors, and</u>
- © potential route for alternative transportation modes.

As a multi-use corridor there will need to be significant advance planning and coordination among various agencies. Planning and financing of the roadway construction and the other uses in the corridor should proceed concurrently. The development of an open space corridor along significant portions of the beltway is an important aspect of the integrating the roadway into the goals of the Comprehensive Plan and one way to address the impact of the beltway on natural environment.

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The study process would involve the cooperation and coordination of the County, Nebraska Department of Roads, Federal Highway Administration, other regulatory agencies, neighborhoods and other special interests. The process would require that all State and Federal regulations and requirements be met or exceeded, this will include the completion of a major investment study to be done before the beltway project is identified in the transportation plan. And, because of the relationship between transportation and land use, the study should integrate future land use plans, beyond those described in this plan, with the transportation study process:

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APPENDIX A: Brief History of South and East Beltway Draft Environmental Impact Statement (DEIS) Process

November 1994	South and East Beltway Study areas are included in adoption of new Comprehensive Plan.
August 1995	Consultants hired Beltway study begins
March 1996	City Council and County Board, in Comprehensive Annual Review, extend the South Beltway study area to a $\frac{1}{2}$ mile south of Bennett Road.
Fall 1996	Study scope revised significant increase in citizen participation and inclusion of full environmental study
1996-1997	Study consultants evaluate different route alternatives and "no build" alternatives.
June 1997	Study consultants recommend elimination of the East Far route and to pursue on East Close and East Middle.
June 1997	City Council, County Board, Mayor and Planning Commission, meeting as "Super Common" recommend elimination of the East Close route and to pursue only the East Middle and East Far routes.
August 1997	"Super Common" hold a public meeting at which citizens comment on the various routes proposed.
December 15, 1998	City Council and County Board, at a special concurrent meeting, vote separately to consider only the East Far route for the Environmental Impact Statement (EIS).
Early 1999	Federal Highway Administration directs that all three east routes must be included in the DEIS.
March 23, 2001	Public Release of Beltway Draft Environmental Impact Statement (DEIS) and Section 4(f) Statement, along with an Assessment of Effect to NRHP and NRHP-Eligible Sites and Properties in the South and East Beltway Study Area.
March 27, 2001	Open House on the DEIS was attended by approximately 430 citizens.
April 23-24, 2001	Public Hearings on DEIS (notices mailed to approximately 1,100 citizens)
June 15, 2001	End of public comment period on DEIS

APPENDIX B: Purpose & Need Statement for South and East Beltway As Stated in Draft Environmental Impact Statement (DEIS)

- "The beltway would complete a circumferential transportation system by linking Interstate 80 (I-80) on the north and U. S. Highway 77 (US 77) on the west."
- [°]The project would move through traffic around Lincoln's congested urban area, and improve traffic flow on the existing urban street system.
- "The south beltway would provide an alternative connection between US 77 in the southwest and Nebraska Highway 2 at the southeast edge of Lincoln."
- [°]The east beltway would connect (Highway 2) at the southeast edge of Lincoln with I-80 in the northeast.
- C "The beltway could be constructed together, completing the loop around the City, or separately as stand alone projects with independent utility (i.e. they would be useable and a reasonable expense even if only one is built without the other)."
- "Purpose and Need. Traffic data, regional growth trends and previous studies have all indicated a need for south and east beltway. Some of the highest rates of growth have been on the south and east fringes of Lincoln thereby requiring a long-range plan to develop early identification of bypass corridors and potential purchase of right-of-way. Existing high volumes of local traffic on arterials such as (Cornhusker Highway) and (Highway 2) is made worse by high volumes of through traffic which originates outside of Lincoln and travels to destinations beyond the City. In addition, internal to external trips and external to internal trips are currently made using arterial roadways with signalized intersections and, in some areas, direct access to adjacent properties. This results in excessive delay and congestion along these roadways."

APPENDIX C: Pertinent References in 1994 Lincoln/ Lancaster County Comprehensive Plan

GOALS: The goals of the current Comprehensive Plan state:

- C "Provide for a long-range plan to develop early identification of bypass corridors and right-ofway retention.
- C Protect and enhance features which give Lincoln and Lancaster County its distinctive character, supporting a desirable quality of life.
- © Exercise stewardship by preserving, protecting and enhancing our historic resources for future generations.
- C Reduce dependency on fossil fuels for energy.
- C Maintain zoning and traffic patterns that are compatible with existing land uses and retain the character of the rural and urban neighborhood.
- C Preserve highly productive agricultural land for agrarian purposes, as well as allow rural, nonagricultural residences; protect ecological and historic sites in rural Lancaster County.
- C Protect unique, rare, threatened or endangered plant and animal species in our community.
- C Maintain, preserve and enhance native prairie, and re-establish native plants on eroded areas to halt soil degradation, provide economic gain and enhance the landscape.
- *Preserve, conserve and expand the significant ecological resources and important historical sites that relate to the history and development of the community.*

STRATEGIES in the transportation and other sections of the Comprehensive Plan state:

- Carry out feasibility and corridor studies and a preliminary environmental assessment for the South and East Beltway within the next five years.
- C Proceed with development of the Beltway and Antelope Creek Trafficway projects.
- Complete implementation of the Beltway to complete a circumferential system for external to external truck traffic.
- © Ensure compliance with Federal air quality standards.
- Include trails and pedestrian facility development in the design and funding of major roadway development projects, including the Beltway, the Antelope Creek Trafficway, and 84th Street.
- Consider the development of new, major corridors such as the Beltway as linear open spaces as well as major highways, integrated into development and open space patterns in developing parts of Lincoln.

- C Program trails development as part of the City's transportation capital program as well as its recreational effort. Include trails and linear parks in the development of new major transportation projects, such as Antelope Valley and the South and East Beltway...
- *Provide for the mobility needs of the community through a balanced and efficient system of roads, trails and public transportation alternatives.*
- C Maintain and enhance an efficient network of roads and public ways that allows the movement of people and freight to all areas of the community, prioritized to meet the current and future needs, balancing environmental effects, safety concerns, cost effectiveness, urban design and relationships to other community goals.
- C Maintain and better utilize the capacity of the existing transportation system through prudent transportation management techniques that reduce present volume and/or slow growth rate of automobile traffic. Make alternative transportation a priority in order to reduce the need to expand existing roadways and parking lots.

TEXT REFERENCES:

Page 108 of the plan states "The South and East Beltway were identified as extremely important links that will provide for ease of external trips around the perimeter of the City. Most of the growth in truck traffic is shown along this loop road system.."

Page 119 of the Plan states "A major opportunity for trail development may be to follow the storm water drainage system into the new areas of the community. This multiple use corridor could also then provide a natural wildlife habitat corridor. The benefits of developing a multi-use corridor include a reduced cost of right-of-way acquisition by using the same corridor for many purposes and the benefit of placing the underpasses of arterials at the same spot. This potential should be considered in evaluating the **South and East Beltway** and the Antelope Valley alternate to 16th and 17th Streets."

Page 104 and 105 as follows: 1. South and East Beltway

"A complete circumferential roadway system has been discussed formally in Lincoln for more than 30 years. The 1961 Comprehensive Plan identified Interstate 80 as the most important link in the circumferential route, supplemented by a system around the urban area.

The 1966 "Lincoln Metropolitan Area Transportation Study" depicted an "East Side Freeway" and a "U.S. 77 West By-Pass" in the Major Street Plan.

A very detailed and comprehensive 1971 "Corridor Study for the U.S. 77 West and East By-Passes of Lincoln" was prepared by a consultant under a contract with the Nebraska Department of Roads. The study identified several alternate corridors with costs and impacts identified for each. The State Highway Commission, in September 1972, designated the U.S. Highway 77 By-Pass as the top priority to receive funds from the highway building program being considered by Congress at that time.

The 1977 and 1985 Comprehensive Plans focused on completion of the U.S. 77 West By-Pass and the "K" and "L" Street connection between the West By-Pass and the Downtown Area.

Since 1972, the efforts and resources of the Community, the Nebraska Department of Roads and various political entities have been focused towards completion of the U.S. 77 West By-Pass, the "K" and "L" Street Extension and the Highway 2 connection along Van Dorn Street. The culmination of these projects reflect an excellent cooperative effort between many different highway agencies, railroads, political subdivisions, park officials and neighborhood groups.

Since most of the work on the U.S. 77 West By-Pass is either underway or has funding committed, attention should now be focused to the future and the need to complete the loop road network with South and East Beltway. Clearly the desire of the community is to complete the loop roadway network.

The community views the beltway system as an essential component of the regional transportation network which would move through traffic around congested urban areas, reduce delay and improve traffic flow on the existing urban street system. The east beltway corridor extends from 96th Street to half a mile east of 148th Street and the south beltway corridor extends from Yankee Hill Road to half a mile south of Bennet Road. (Amendment 9405)

The network model evaluated the potential impacts of the South and East Beltway on the rest of the street network. The projected traffic diverted to the beltway was found to be heavily dependant upon their location. An unrestrained East Beltway (with higher speeds and no signals) located at the extreme eastern limits of the corridor was shown to serve 24,000 fewer vehicles per day than a similar facility located at the extreme western edge of the corridor. A similar sensitivity to location was shown in the South Beltway, although the projected volumes were somewhat lower with a change of 5,500. It is, therefore critical that a Feasibility, Corridor Alternative Evaluation and Preliminary Environmental Assessment be undertaken early in the Planning period. This is necessary not only to provide corridor protection but to address impacts on other portions of the network.

Establish a high priority plan to develop early identification of beltway corridors and right-of-way retention and develop an aggressive program to commence the process of funding requests."

The study process would involve the cooperation and coordination of the County, Nebraska Department of Roads, Federal Highway Administration, other regulatory agencies, neighborhoods and other special interests. The process would require that all State and Federal regulations and requirements be met or exceeded, this will include the completion of a major investment study to be done before the beltway project is identified in the transportation plan. And, because of the relationship between transportation and land use, the study should integrate future land use plans, beyond those described in this plan, with the transportation study process."

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APPENDIX D: Table 4.1 Summary of Beltway Benefits and Impacts From Draft Environmental Impact Statement (DEIS)

LEVEL IV: SUMMARY OF BELTWAY BENEFITS AND IMPACTS

IMPACTS	UNITS	ALTERNATIVES			
		SM-4	EC-1	EM-1	EF-1
TRANSPORTATION BENEFITS (E	nd to End Beltway Analy	sis: South and Ea	ast Combined)		
Total Daily Beltway Usage	Vehicle Kilometers (Miles) Traveled		762 800 (474,000)	721 000 (448,000)	696 800 433,000
Average Daily Time Savings	Hours		9,400	10,250	8,450
Average Annual Accident Savings ¹	\$		\$8,691,000	\$7,430,000	\$4,712,000
ECONOMIC IMPACTS					
Construction Cost (partial beltway)	\$ (1996)	\$107,000,000	\$147,000,000	\$152,000,000	\$128,000,000
Construction Cost (end-to-end beltway with SM-4)	\$ (1996)		\$254,000,000	\$247,000,000	\$236,000,000
Payoff Period ² (end-to-end beltway with SM-4)	Months	-	25	23	35
Cost Effectiveness	Payoff Period less than Design Life of Project		Yes	Yes	Yes
SOCIOECONOMIC IMPACTS		•			
Total Right-of-Way	ha (ac)	295 (730)	451 (1114)	389 (960)	449 (1110)
Residential Relocations	no. of houses	5	6	4	8
Business Relocations	no. of businesses	1	0	0	1
Railroad Crossings ³	no. of crossing	3	2	0	0
Airfield Impacts	impacts	none	none	none	none
Cropland Impacts	ha (ac)	206 (508)	296 (731)	282 (698)	316 (780)
Total Farmland Impacts	ha (ac)	238 (587)	367 (906)	329 (813)	375 (926)
Prime and Unique Farmland Impacts (end-to-end beltway with SM-4)	Impact Rating Points (0-260)		140 (minor)	143.5 (minor)	142 (minor)
LAND USE IMPACTS	•				
Distance from 2000 City Limit	km (mi)	0.8-2.4 (0.5-1.5)	0.8-3.2 (0.5-2.0)	2.4-4.8 (1.5-3.0)	2.4-6.4 (1.5-4.0)
Residential Impact	ha (ac)	9.5 (23.4)	12.3 (30.3)	4.0 (10.0)	7.8 (19.3)
Commercial/Industrial Impact	ha (ac)	4.2 (10.3)	1.6 (3.9)	0.6 (1.4)	1.1 (2.7)
Trail Impacts	no. of crossings ha (ac)	0	2 0.6 (1.5)	1 0.3 (0.8)	1 0.3 (0.7)

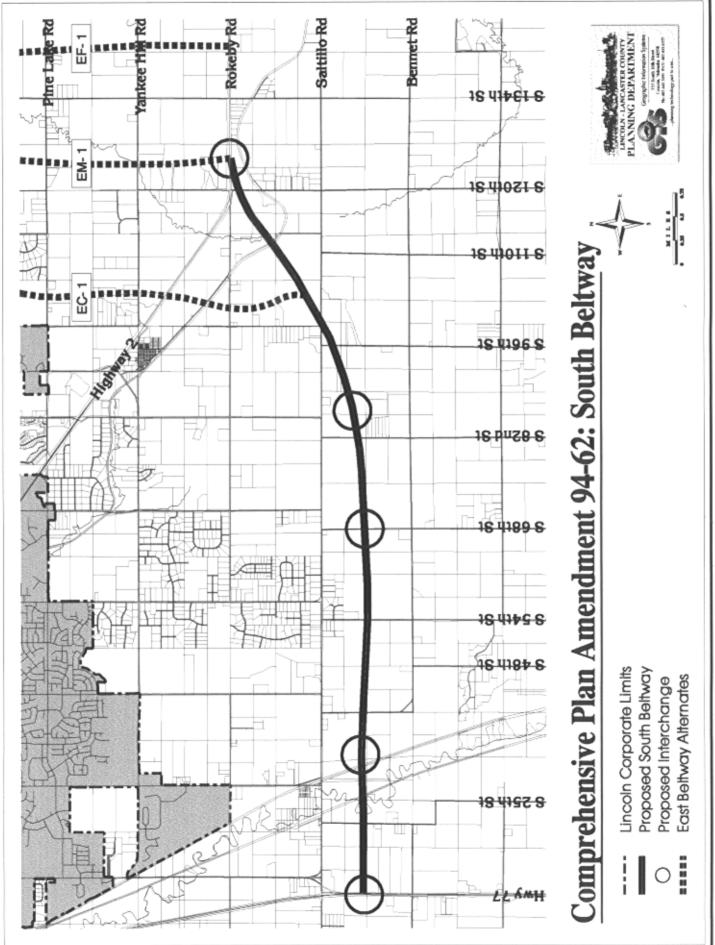
IMPACTS	UNITS	ALTERNATIVES			
		SM-4	EC-1	EM-1	EF-1
Modification of Proposed LPSNRD Farm Ponds	no. of ponds	0	2	1	2
ENVIRONMENTAL IMPACTS					
Air Quality	NAAQS impacts	no impact	no impact	no impact	no impact
Noise ⁴	no. of impacted receptors ⁴	5	10	5	7
Water Quality	Impacts	minor and temporary	minor and temporary	minor and temporary	minor and temporary
Major Stream Crossings	no. of crossings	2	2	1	0
Total Streams	no. of crossings	8	9	6	4
100-Year Floodplains	no. of crossings	4	4	6	5
Floodways	no. of crossings	0	2	1	0
Wetlands	ha (ac)	7.3 (18.0)	16.9 (41.8)	8.8 (21.8)	8.3 (20.4)
Prairie Grasslands	ha (ac)	0	0.4 (1.1)	1.3 (3.2)	2.7 (6.6)
Endangered & Threatened Species	Impacts	none	none	none	none
NRHP Archeological Sites Adversely Affected under Section 106	no. of sites	0	1	1	0
NRHP Standing Structures Adversely Affected under Section 106	no. of sites	1	0	1	3
Section 4(f) Impacts-Recreation	no. of resources	0	2	1	1
Section 4(f) Impacts-Historic	no. of sites	0	0	1	1
Potential Environmental Risk Sites	no. sites along route	9	4	4	4
Visual Impacts to Residences	no. w/in 0.4 km (0.25 mi)	27	58	31	41

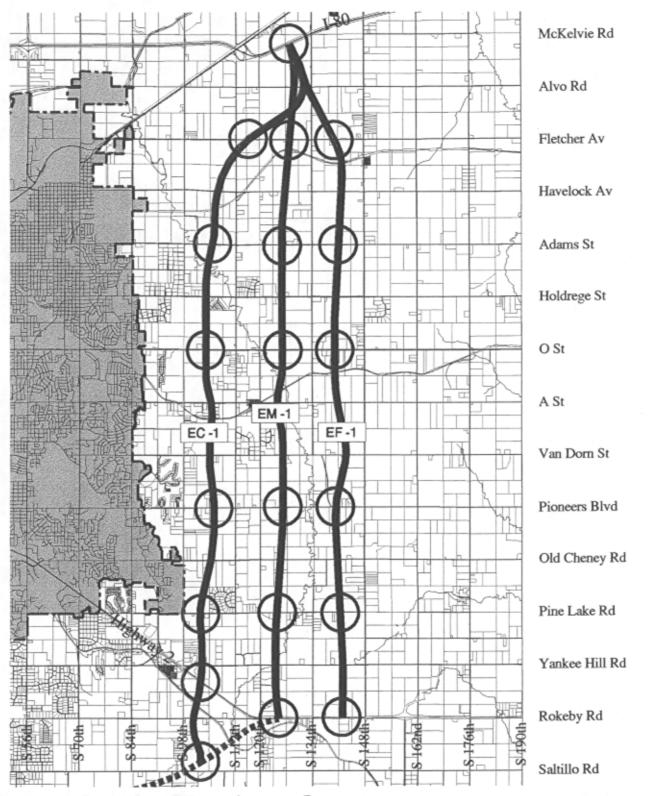
¹ Average Annual Accident Savings is based on end-to-end beltway analyses performed with the BOS land use plan. The BOS II land use plan is expected to provide even greater accident cost savings.

² An analysis of the time savings with the BOS II model comparing the end-to-end beltway alternatives and no build alternative indicates the investment to construct the beltway would be paid off through time savings alone in less than three years (**Section 2.3.6.2**),. The conclusions of this comparison are that all end-to-end beltway alternatives for all the east alignments are economically feasible.

³ If SM-4 and EC-1 are constructed, two crossings of the OPPD line will be required. EC-1 alone does not require any railroad crossing.

⁴ These are receptors for which noise abatement measures were not considered reasonable.





Comprehensive Plan Amendment:

East Beltway Alternate Comparison

---- Lincoln Corporate Limits

Proposed East Beltway Alternates

Proposed Interchange
South Beltway Alternate SM- 4







